## **ABSTRACT**

An instrumented joint trial has a polymer layer defining a curved contoured articulating surface. A curved contoured sensor array is positioned below the polymer layer. Other components of the joint trial, such as a body with a proximal curved contoured surface, are positioned below the sensor array. The device can be made by forming a sheet of the polymer over the curved contoured surface of the joint trial body and then adhering the sensor array to one curved contoured surface of the formed polymer. The sensor array conforms to the shape of the formed polymer layer. The system includes a mating joint trial. The device may be used by temporarily attaching the joint trial to a resected portion of bone and then articulating the joint with the instrumented trial in place.